

REMARKS/ARGUMENTS

In response to the Office Action mailed June 30, 2006, Applicant amends his application and requests reconsideration. In this Amendment claims 4 and 5 are cancelled leaving claims 1-3 and 6-16 pending.

Claim 11 was stated to be allowable if rewritten in independent form.

All claims were reviewed and, where appropriate, amended for clarity. In this review, it was discovered that an original paragraph of claim 16 relating to the cap member was inadvertently omitted from the form of claim 16 presented in the Preliminary Amendment. That missing paragraph is restored, with some clarification, to amended claim 16.

Claims 15 and 16 are independent claims and, in this Amendment, the limitation of claim 11 has been added to each of claims 15 and 16. In view of the language of claims 15 and 16, the added limitations refer to a parabolic mirror rather than a reflecting mirror as in claim 11. In view of the concession of allowability of claim 11, claims 15 and 16 are now in form for allowance so that no further discussion of those claims is necessary nor presented.

In this Amendment claim 4 is substantially incorporated into claim 1 with further explanation based upon the disclosure of the patent application. Claim 5 is cancelled as redundant in view of this Amendment. Amended claim 1 explains that the signal light that is condensed by the lens is incident on the quadric reflecting surface and is generally parallel to an axis of that quadric reflecting surface. Further, the signal light so incident, at the center of the quadric reflecting surface and within a distance from the center of the quadric reflecting surface of approximately one-half radius of that quadric reflecting surface, is reflected from the quadric reflecting surface at approximately a right angle to the axis along which the condensed light is incident. This arrangement is described within the patent application, for example at pages 4 and 5 and particularly in the paragraph at page 28 beginning in line 21.

Examined claims 1-5, 9, and 10 were rejected as anticipated by Matsumoto (JP 4-88308). This rejection is respectfully traversed as to claims 1-3, 9, and 10 as now pending.

In this Amendment claim 1, in incorporating the limitation of examined claim 4, states that the signal light incident on the quadric reflecting surface within one-half radius of the quadric reflecting surface, from the center of the quadric reflecting surface, is reflected at substantially a right angle to the axis of incidence of the light. This description is supported in the patent application at numerous locations, principally in the passage from page 28, line 21, through page 29, line 2. See, also, page 4, lines 7-10, and page 8, lines 5-21. This feature is not described in Matsumoto, contrary to the assertion of the Office Action at page 3, lines 2-4, which cites Figure 1a of Matsumoto. That figure clearly shows that the light detector 2 receives light reflected from the mirror 8 at an acute angle with respect to the axis of incidence of the light on that mirror 8, light that is collimated by the lens 7. Thus, there can be no anticipation of claim 1 or any of its remaining dependent claims, claims 2, 3, and 6-14, by Matsumoto. Further discussion of that rejection for anticipation is, therefore, not required or provided.

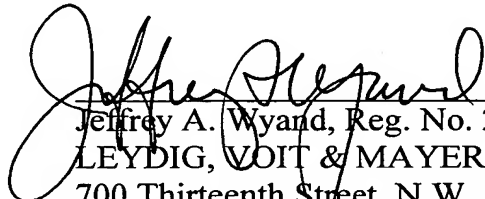
Of the other pending claims that depend from claim 1, separate rejections for obviousness were made with respect to claims 6-8 and 12-14. These rejections are all based upon the assertion that claim 1 is anticipated by Matsumoto. Because there is no such anticipation, at least with respect to the claims now presented, the secondary rejections are traversed and further comments on them are not necessary and are not supplied.

Applicant respectfully notes that there appears to be an error in the rejection of claim 12. Claim 12 specifies a particular dimensional relationship concerning the reflecting mirror and its radius of curvature and focal length. The comments concerning the rejection of claim 12 do not pertain to the limitation of that claim and it appears that the Examiner intended to reject claims 8, 13, and 14, as a group, not

including claim 12. If a further rejection is made, clarification with respect to the basis of the rejection of claim 12 is respectfully requested.

Reconsideration and allowance of claims 1-3 and 6-16 are respectfully requested.

Respectfully submitted,


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